POLARA ENGINEERING INC.
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Model XAV2E-LED Push Button Station

2.5

5.5

15.25

PUSH BUTTON TO TURN ON WARNING LIGHTS

The XAV2E-LED push button station is designed for use at a pedestrian crosswalk with in-pavement or overhead flashing yellow lights. It works in conjunction with the XAVCU2 control unit. Within this system, the XAV2E-LED provides an instructional sign, a push button with directional arrow for activating the flashing lights, a voice message, and a group of three yellow LEDs above the push button which flash in sync with the street lighting.

The XAV2E-LED uses the same rugged and reliable push button and housing as Polara's EZ Comm Navigator series. In addition to the push button, the XAV2E-LED contains a speaker, a 10 watt RMS audio amplifier, a noise monitoring microphone for auto volume control, and LEDs.

The XAV2E-LED contains an 8 position terminal block ready for connection to an XAVCU2 or XAVCU2-DC series unit. The installer must supply an 8 conductor cable (Belden #27601A recommended).

The unit is supplied with mounting hardware and installation instructions. Terminal screws on each XAV2E-LED include washers (clamping plates) intended for bare wire. Crimp Terminals are not recommended.

Note: This unit is not compatible with older XAVCU controllers.

XAV2E-LED (Standard Yellow)

XAV2E-LED-B (Black)

XAV2E-LED-G (Green)

See page 3 for additional ordering options.

Model XAV2E-LED Push Button Station

Function

Push button station for use on crosswalks with flashing yellow lights. Connects to XAVCU2 or XAVCU2-DC series units to enable triggering of crosswalk lights and can provide a locate tone and a voice message.

Features

- Instructional sign with tamper resistant mounting screws
- Provides yellow LEDs above the button that flash in sync with street lighting
- ADA compliant push button with directional arrow - field adjustable direction: left, right, up or down
- 10 watt audio amplifier
- Weather resistant speaker
- Volumes controlled by potentiometers on the XAVUC2

Electrical Properties

Power Requirements	
DC In	10-24 V DC from XAVCU2
Idle Current Draw	~1.2mA
Peak Current Draw (15VDC input power)	~500mA with voice message at maximum
LED Current	22mA typical
Outputs	
BTN	Driven low to ground when the push button is pressed
MIC (Microphone)	0-1.5 Volts (ambient noise feedback)
Inputs	
PWR+	10-24 Volts DC referenced to PWR-
PWR-	DC Ground
LED	Connect to ground to drive LEDs (typically 22mA)
MUTE	Connect to ground to enable audio amplifier
AUD1	One half of balanced audio input
AUD2	Other half of balanced audio input

Mechanical Properties

Physical	
Enclosure Type	Cast aluminum housing with yellow powder coat finish, watertight o-ring seals
Installation	2 holes on 6.0" centers, tapped ¼-20 plus ½" or larger hole for wire access
Dimensions	
Width	5.50"
Length	15.25"
Maximum Height	2.60"
Environmental	
Operating/Storage Temp.	-34ºC to +60ºC

Operating Specifications

Parameter	Rating
Operating Temperature Range	-34ºC to +74ºC (-30ºF to +165ºF)
Storage Temperature Range	-45ºC to +85ºC (-50ºF to +185ºF)
Operating Force	3.0 lbs Maximum
MTBF	3,000,000 hours
Switch Operating Life	Greater than 20 Million Operations
Maximum Volume	100 dB @ 1 meter

Design Compliance

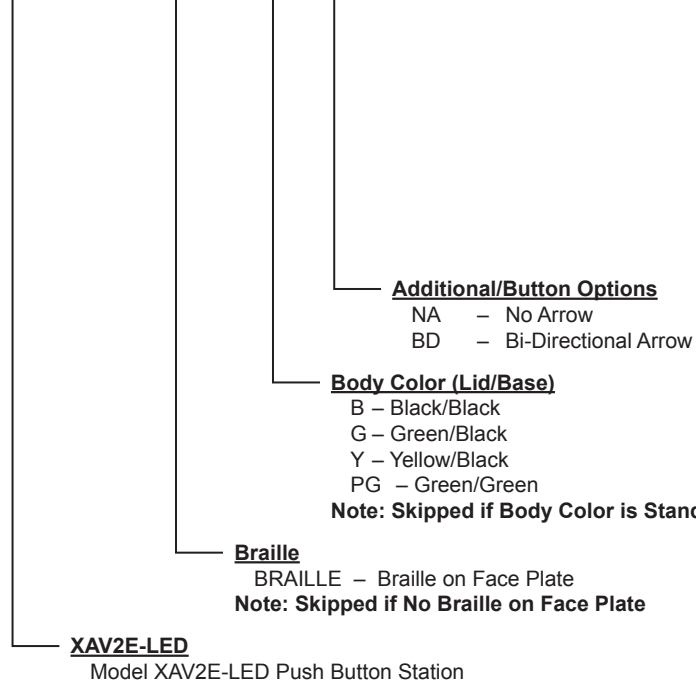| Test Type	Compliance
Functionality	MUTCD 2009 - 4E
Temperature and Humidity	NEMA TS 2
Mechanical Shock and Vibration	NEMA TS 2
EN4 PBS Enclosure	NEMA 250 - Type 4X

Notes:
1. Applicable sections only of reference standards.
2. All specifications are subject to change without notice.
3. All specifications are Typical unless otherwise specified.

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Ordering Options

<u>XAV2E–LED</u> – <u>BRAILLE</u> – <u>B</u> – <u>NA</u>

Additional/Button Options
NA – No Arrow
BD – Bi-Directional Arrow

Body Color (Lid/Base)
B – Black/Black
G – Green/Black
Y – Yellow/Black
PG – Green/Green
Note: Skipped if Body Color is Standard Yellow/Yellow

Braille
BRAILLE – Braille on Face Plate
Note: Skipped if No Braille on Face Plate

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XAVCU2

XAV2E-LED units require an XAVCU2 or XAVCU2-DC series unit for operation. The XAVCU2 provides power, audio and LED control, as well as button I/O features. The XAVCU2 comes with a Locate Tone feature and the following messages included by default:

- Standard English Message: "Yellow lights are flashing"
- Standard Spanish Message: "Las luces amarillas estan relampaqueando"

See the XAVCU2 series data sheets for additional information.